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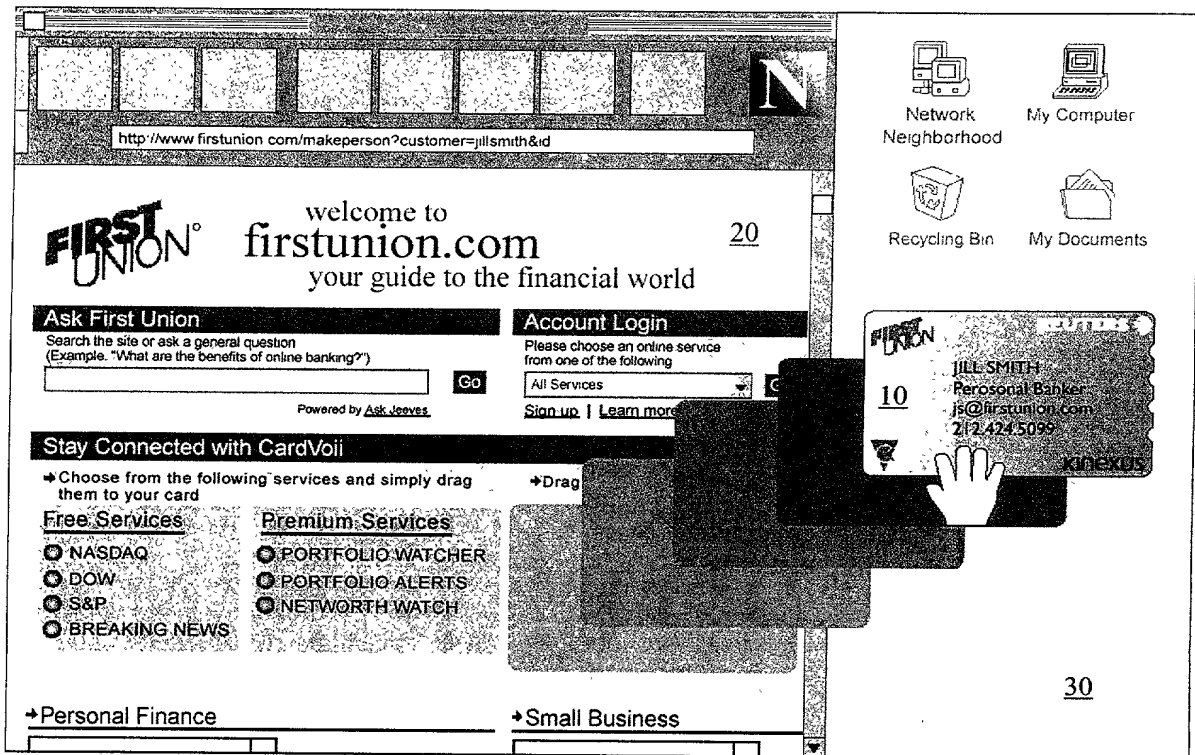


FIG. 1

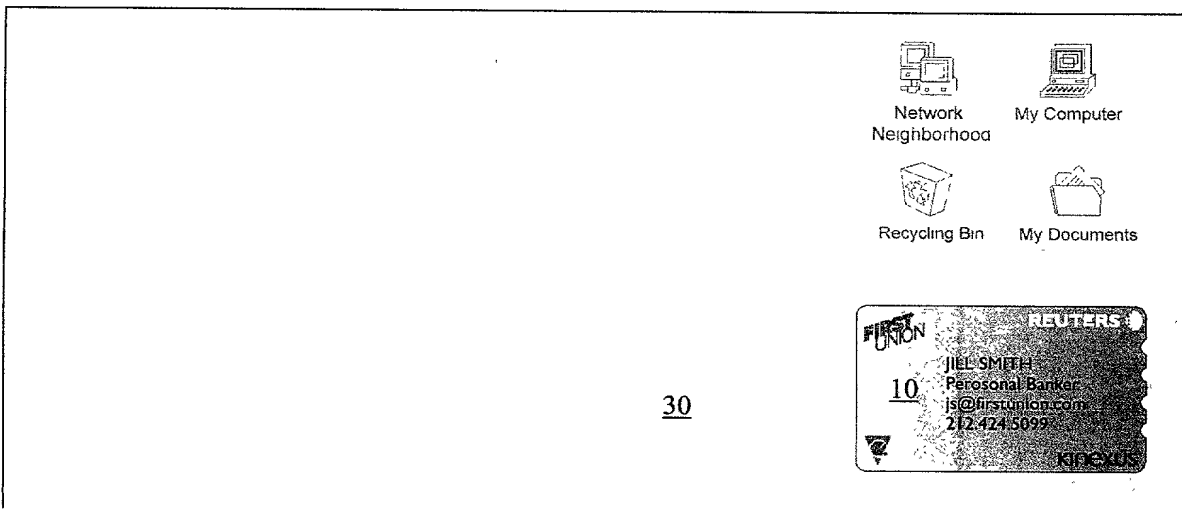


FIG. 2

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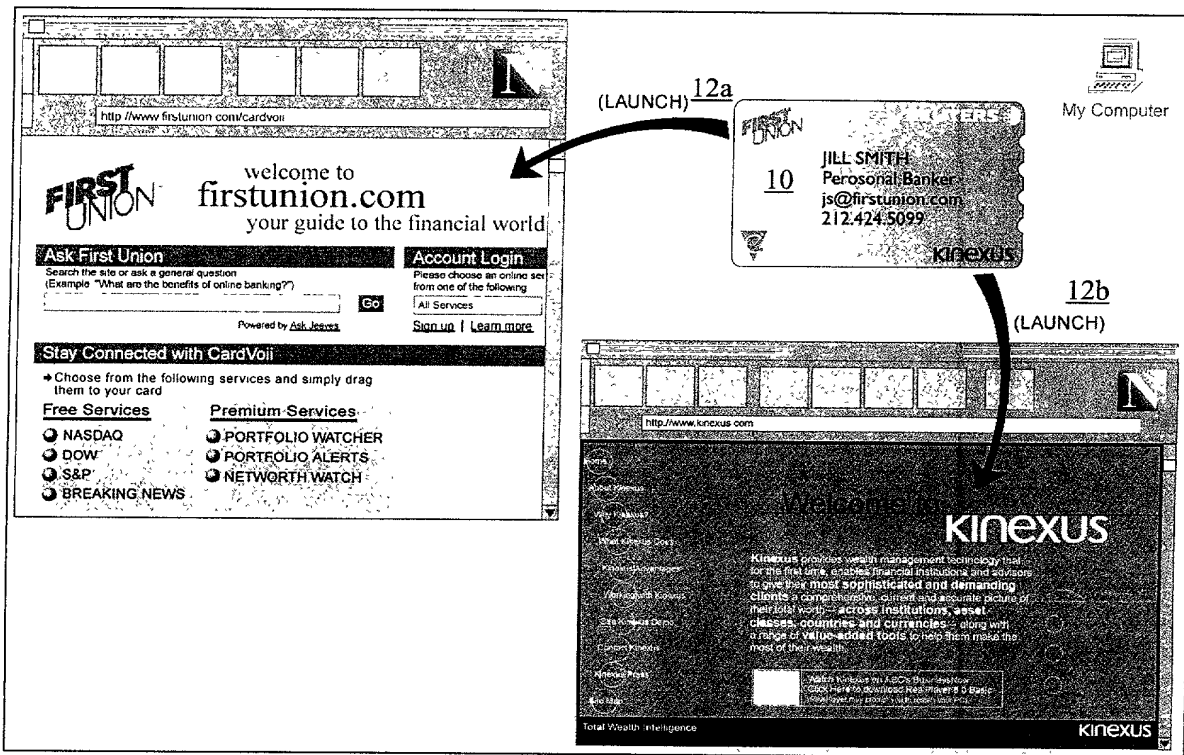


FIG. 3

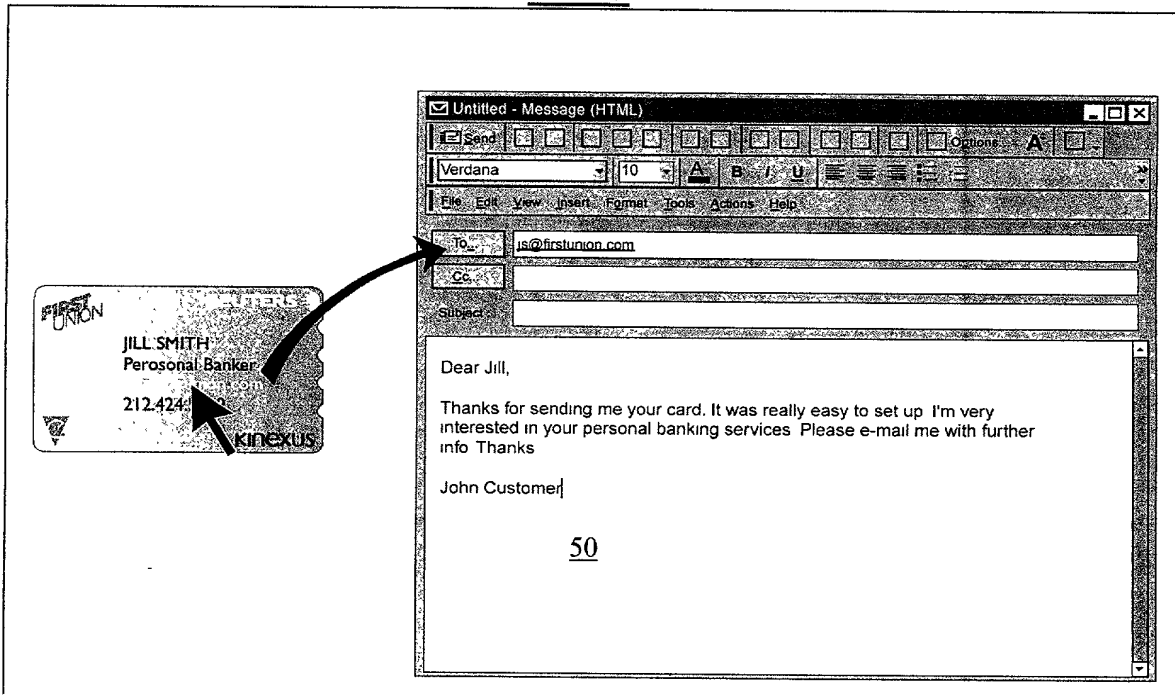


FIG. 4

METHOD AND APPARATUS FOR A DISTRIBUTABLE ENVOII OBJECT

Michael Tolson Filed 08-May-01

LOJAG Attorney Docket No: 507.000110US; SJL Tel. No. 510-337-7871

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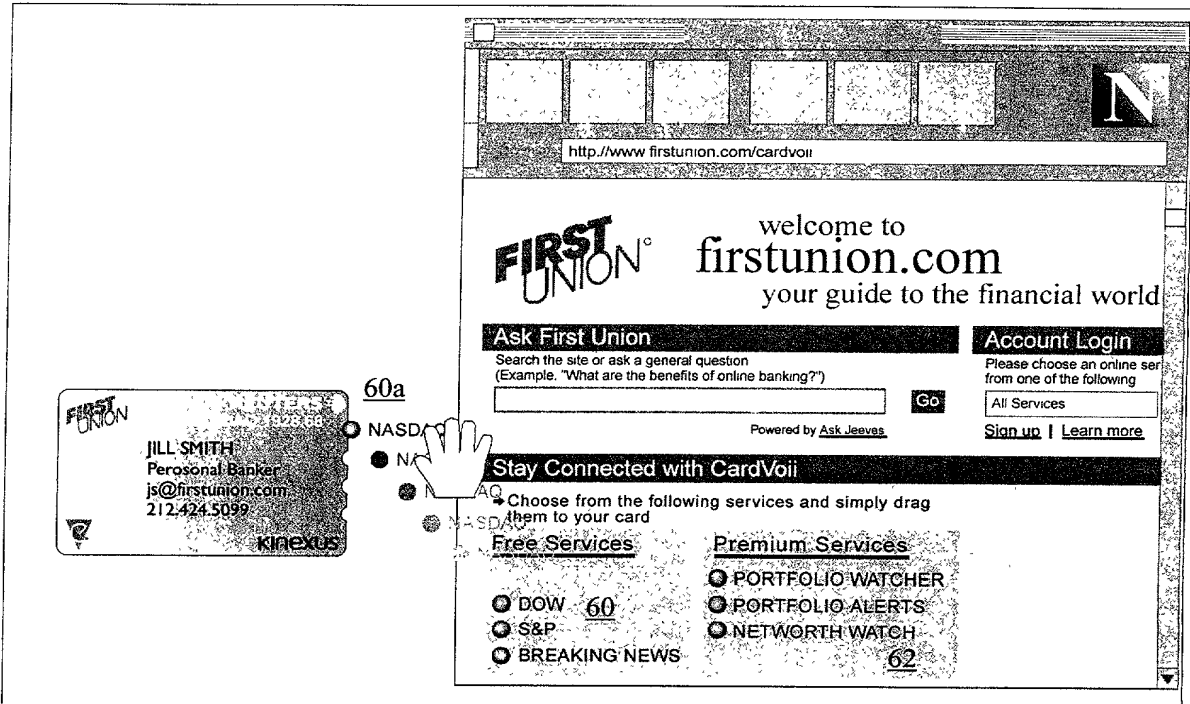


FIG. 5

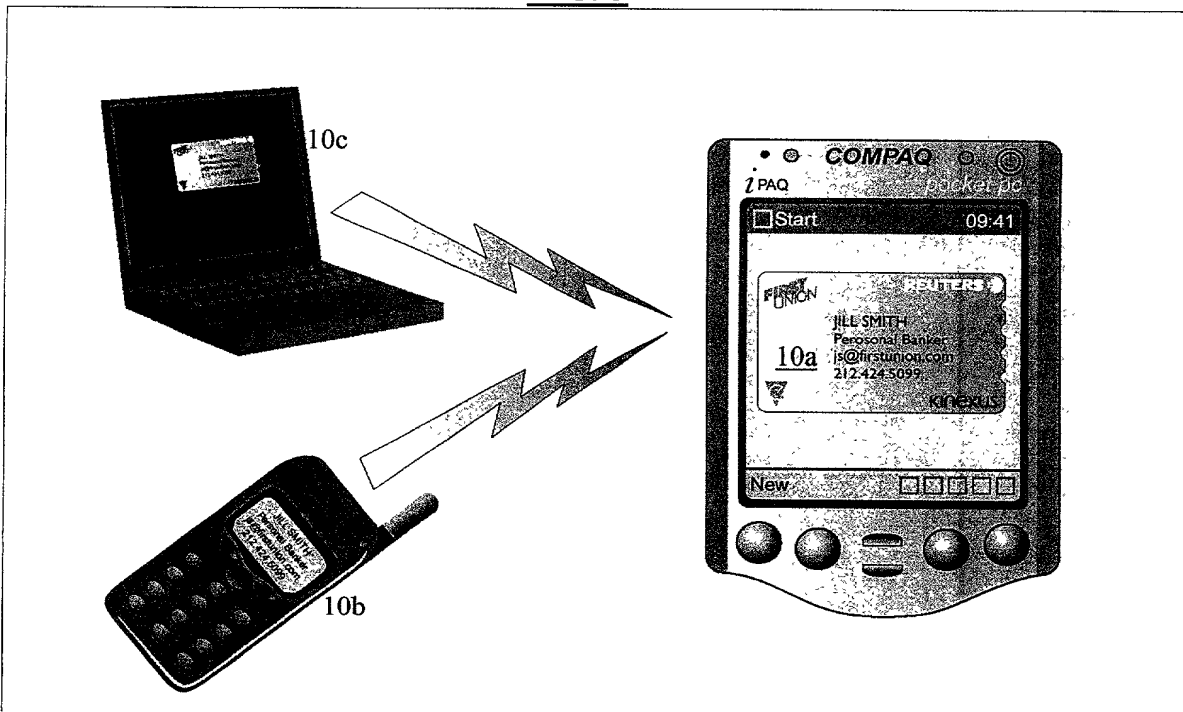


FIG. 6

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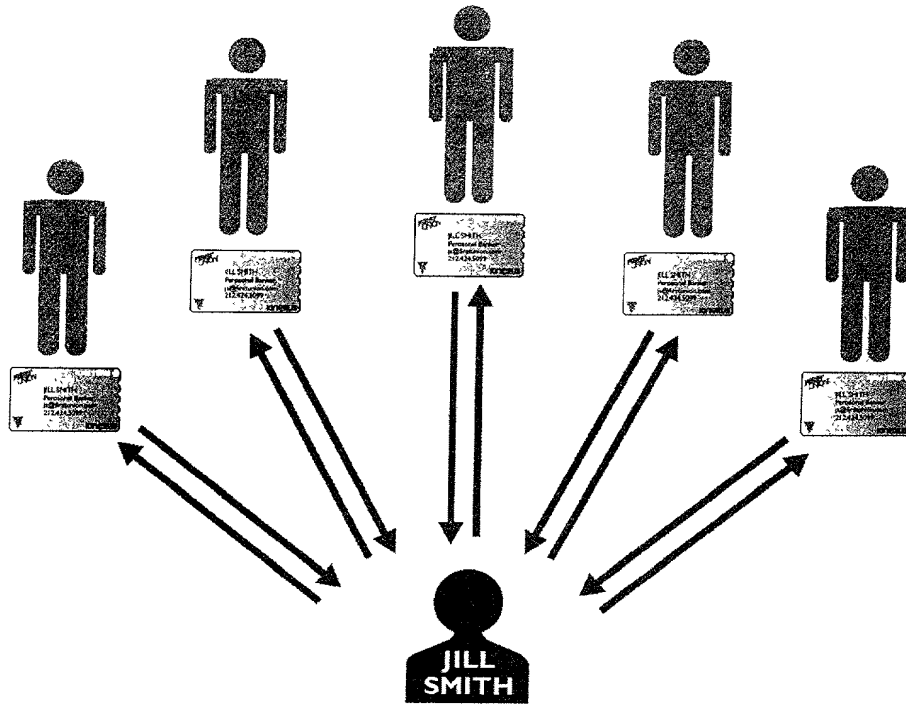


FIG. 7

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This is an example of a simple composition with a metavoii and two places, with a very few non-structural connections indicated as dotted arrows. It is clear from this example the importance of the ability to track and manage connections.

Note that in this model, the parent of a Metavoii can become Envioi.com.

This (100) is what we have been calling a "Metavoii". It has several services attached as parts: Tracking, Communications, ORB and security.

This (110) is an example of a "placevoii". It has an event server and Display Manager attached, but is empty. To the left is another placevoii with three children.

In this sub-composition Envioi (120c) there are two skins attached, one which is a tracking skin and is connected to the tracking manager and one which is setting properties on a viz

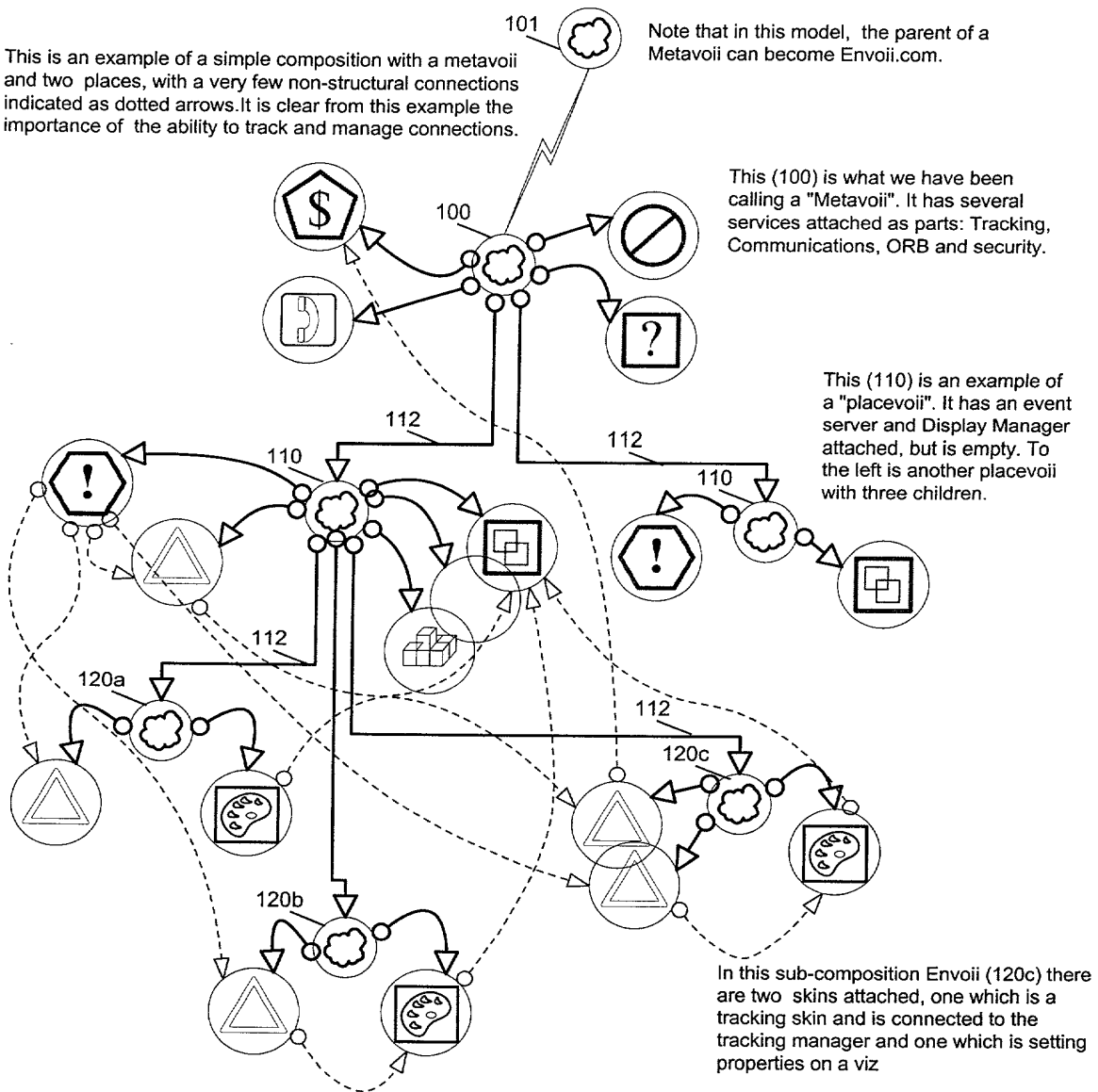
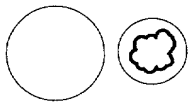
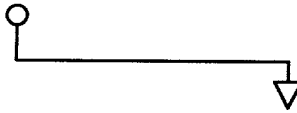


FIG. 8

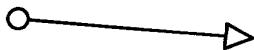
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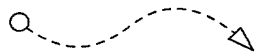
These are Envois (or "Enodes"). As an instance of a class, it provides generic graph interface. The connection points are representative of open set of "ports" which enable connections to other enodes.



This is a "Kid" connection, which is a specialization of a "Part" connection. It is the primary glue which is used by designers in building compositions. It effectively help implement a tree-hierarchy as in the current system.



This is a "Part" connection. Part connections are structural, and enforce a part/part-c protocol.



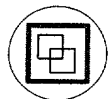
This is a representative dynamic connection. Some such connections may be transient, and others not.



This is a "skin", and it bears a part-of relationship to an envoy.



This is a "Viz" and it bears a part-of relationship to an envoy.



This is a "DisplayManager". It is a part of an envoy which provides a rendering service.



This is an "Event Service".

FIG. 9

FIG. 9 is a diagram illustrating various components and connections of a distributable Envoy object. The diagram shows several icons: a circle, a circle with a cloud-like shape, a circle with a triangle, a circle with a palette, a circle with two overlapping squares, and a circle with a hexagon containing an exclamation mark. These icons are connected by lines, representing different types of connections: 'Kid' (solid line, downward-pointing triangle), 'Part' (solid line, rightward-pointing triangle), and dynamic (dashed line, rightward-pointing triangle). The text describes each icon and its relationship to an Envoy object.

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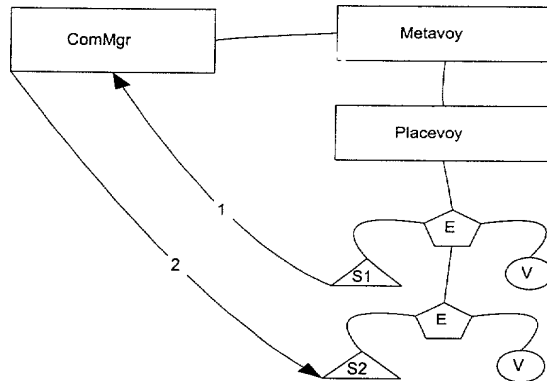


FIG. 10

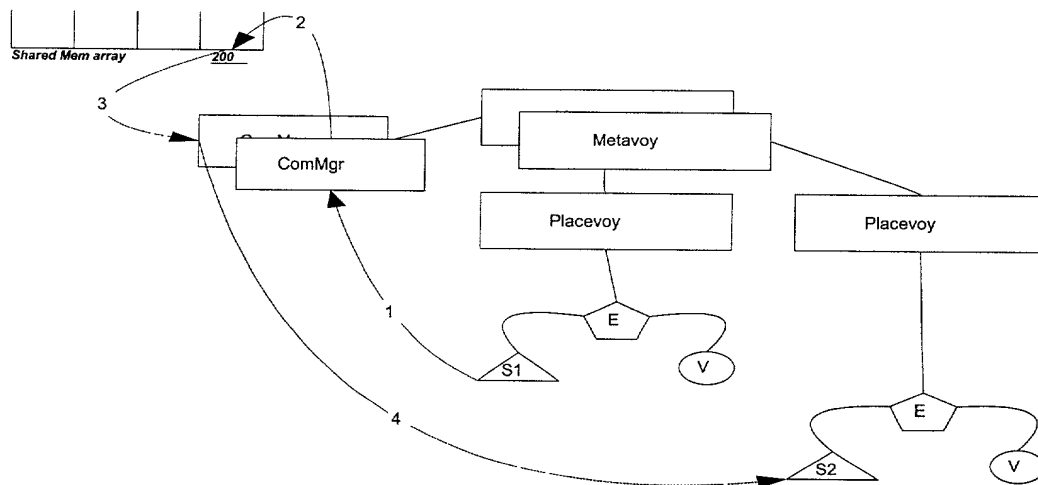


FIG. 11

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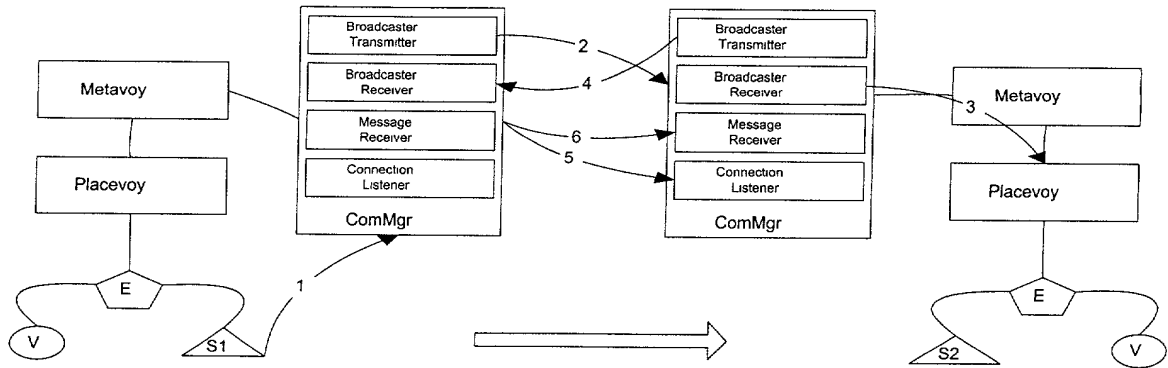


FIG. 12

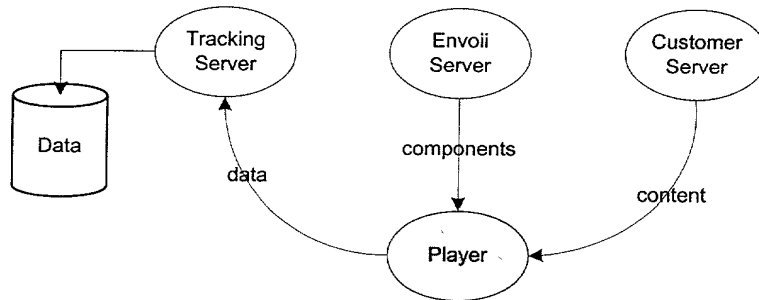


FIG. 13

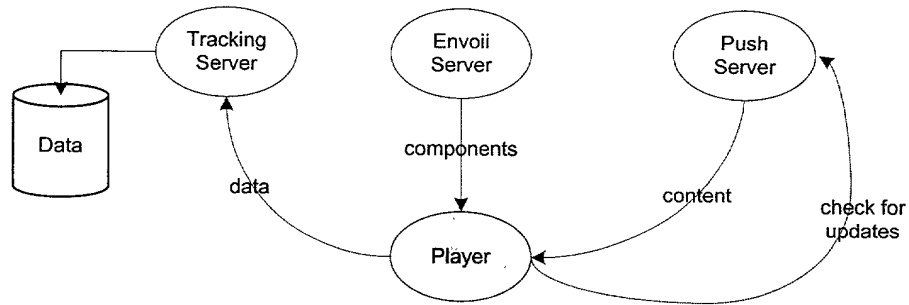


FIG. 14

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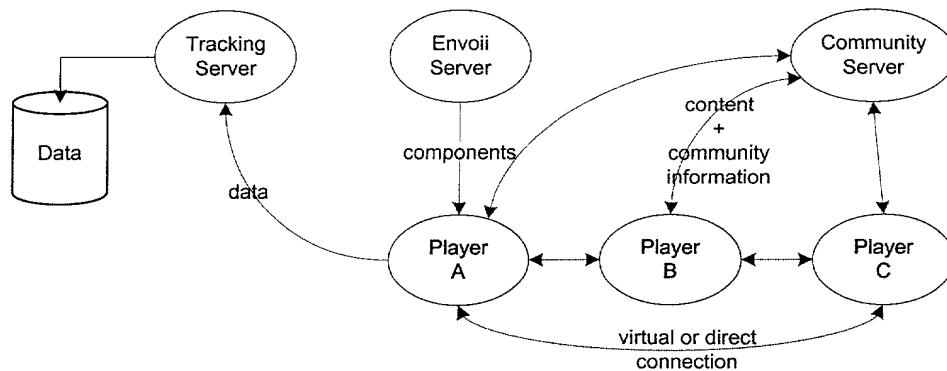


FIG. 15

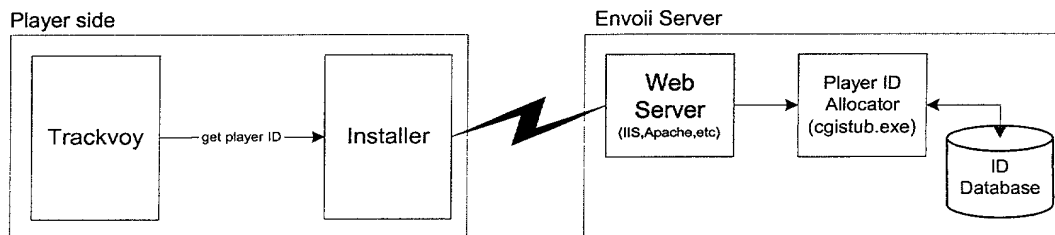


FIG. 16

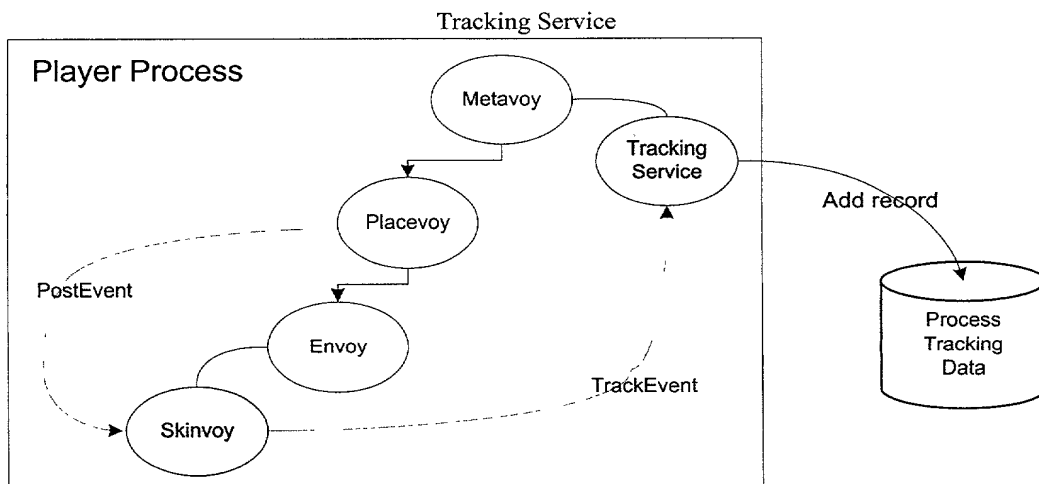


FIG. 17

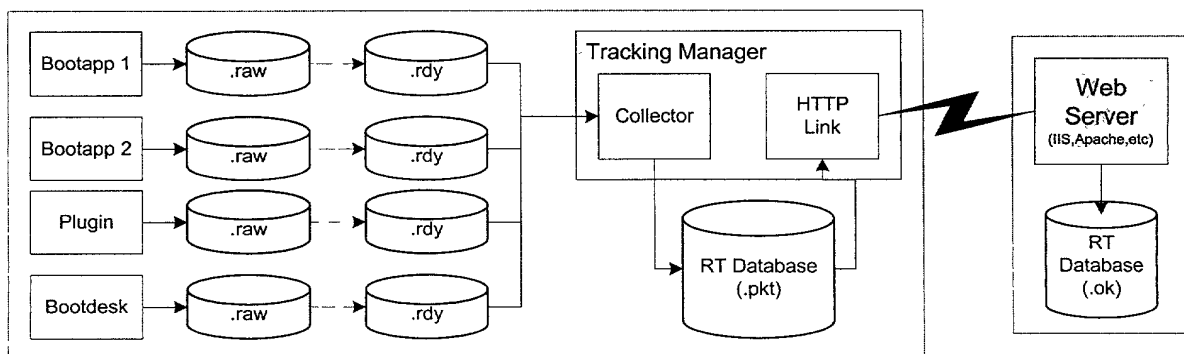


FIG. 18

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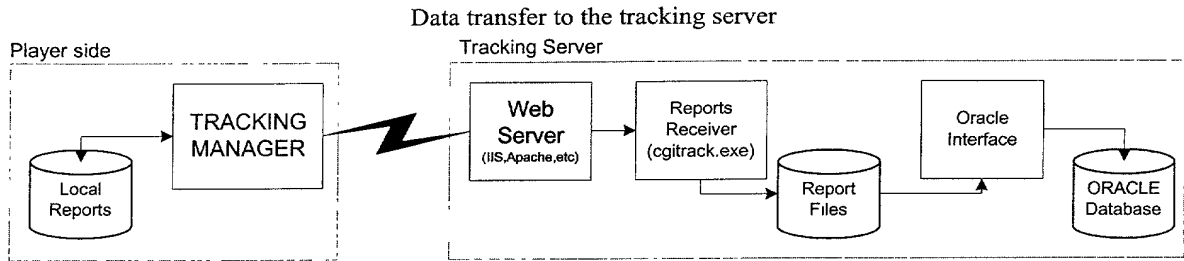


FIG. 19

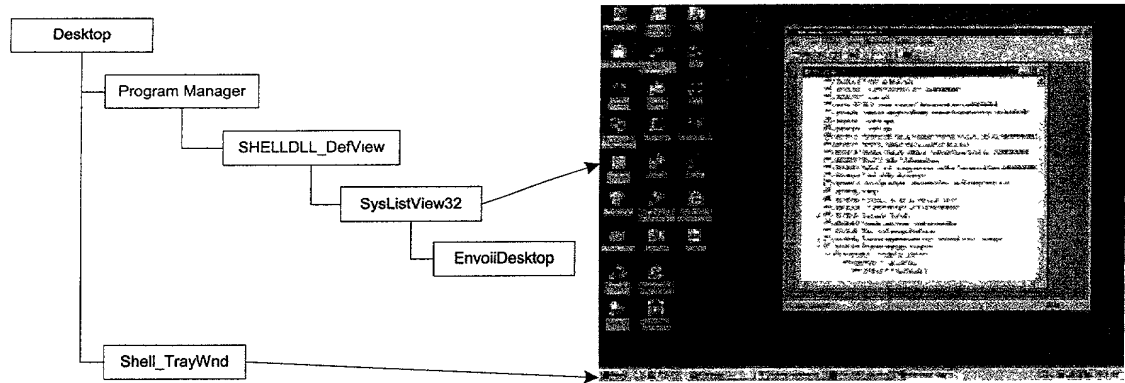


FIG. 20

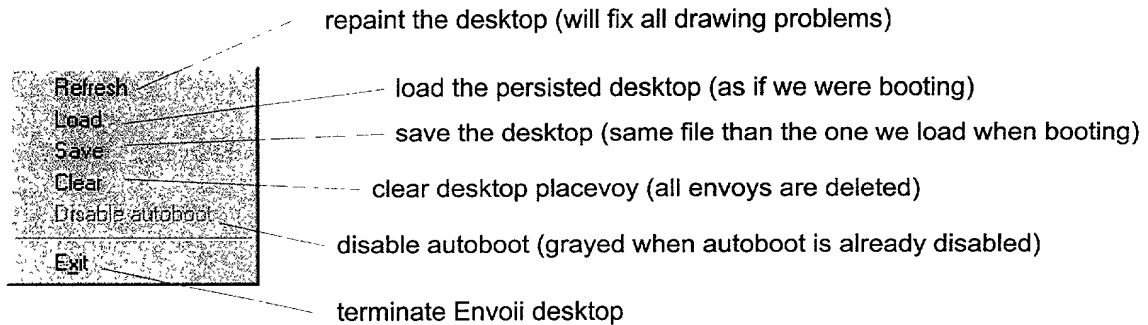


FIG. 21

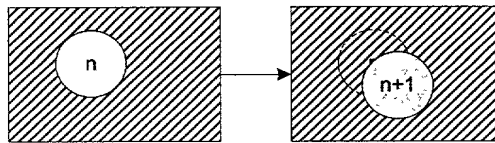


FIG. 22

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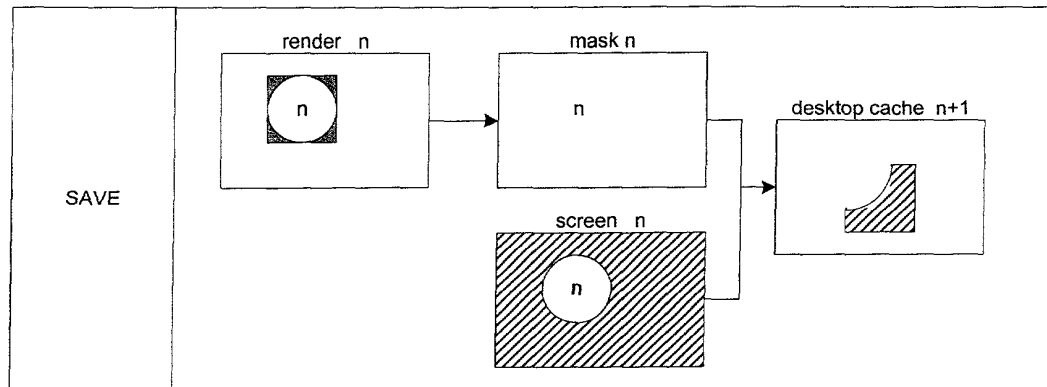


FIG. 23

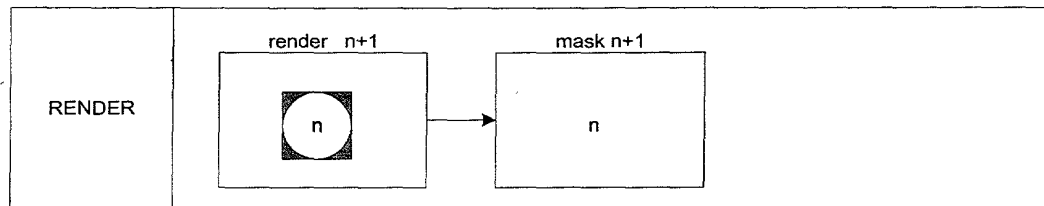


FIG. 24

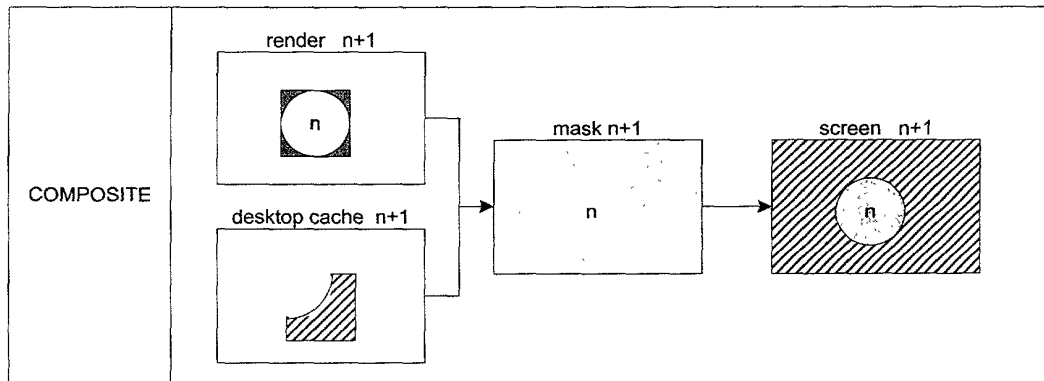


FIG. 25

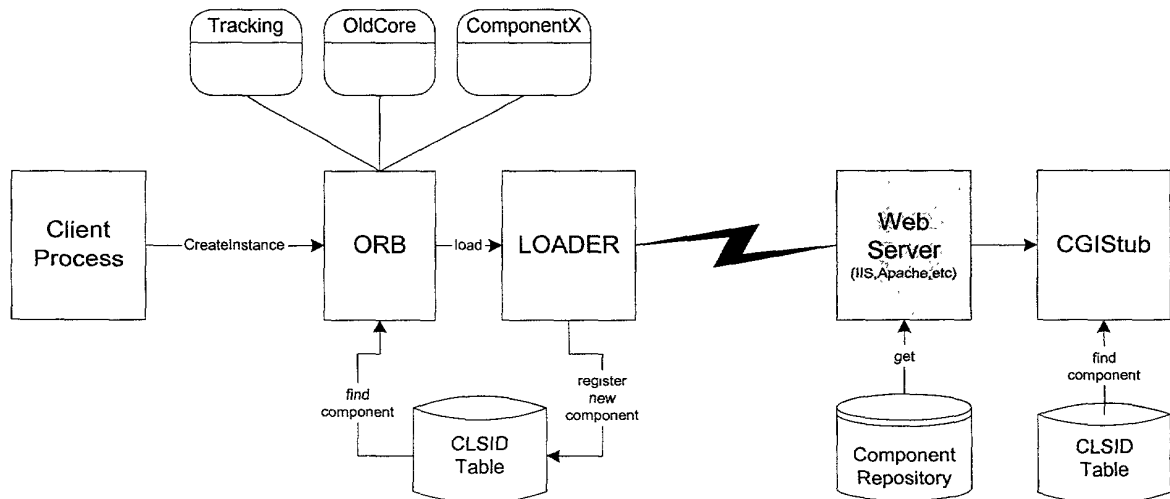


FIG. 26

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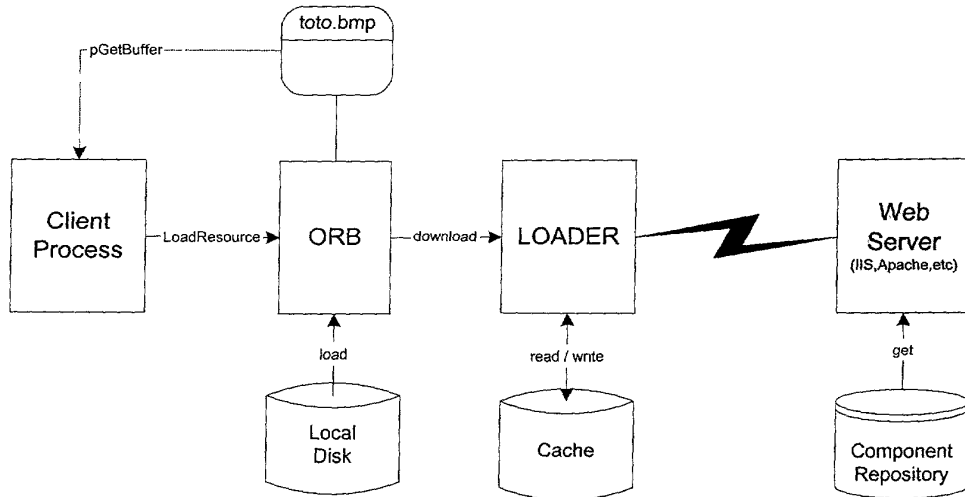


FIG. 27

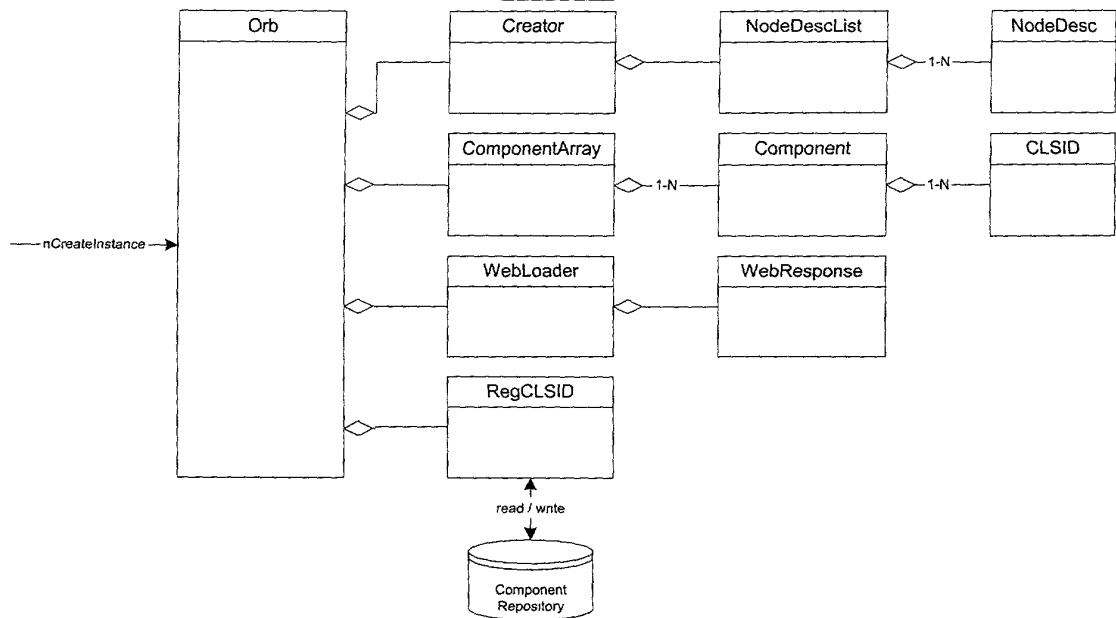


FIG. 28

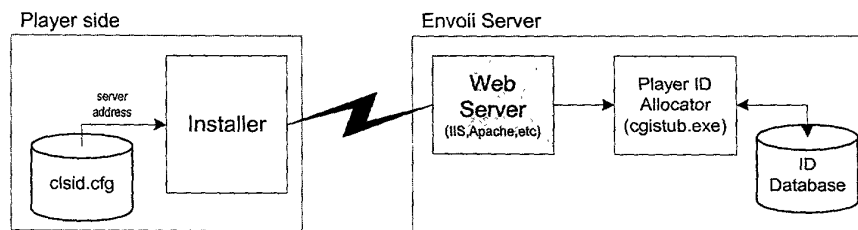


FIG. 29

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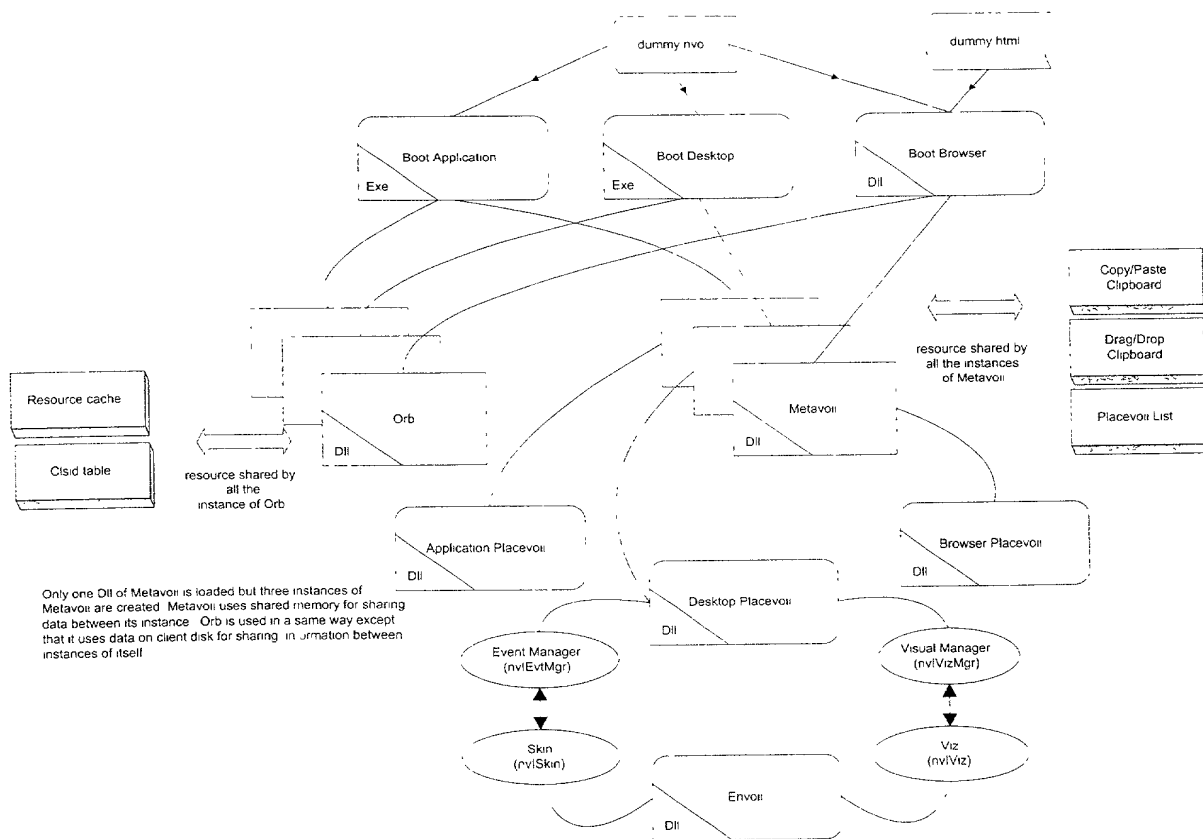


FIG. 3D

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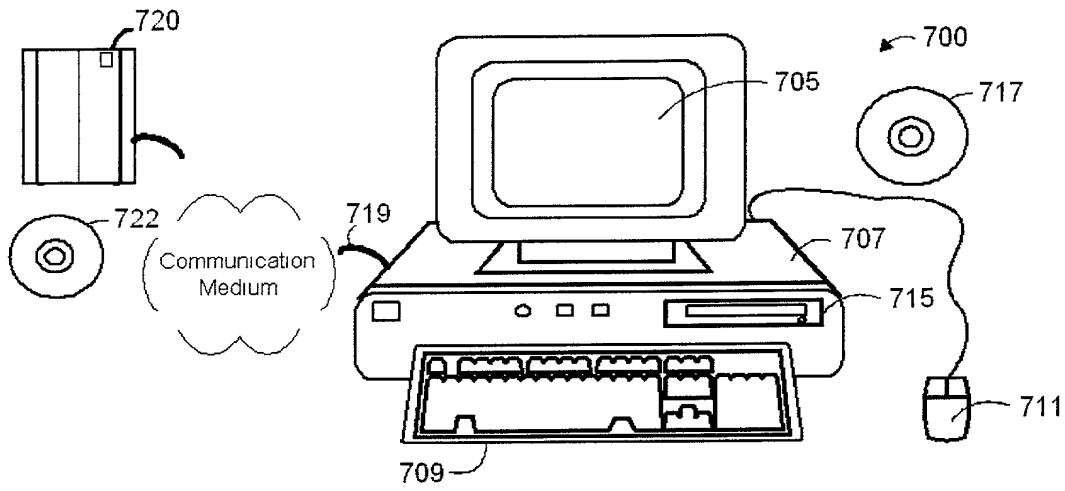


FIG. 31